



US Army Corps
of Engineers®

Engineer Research and
Development Center

Aquatic Plant Information System (APIS™)

Technology

[The Aquatic Plant Information System \(APIS™\)](#)

provides information on the identification and management of over 60 species of native and introduced aquatic and wetland plant species. In addition, identification strategies for common management procedures are included for chemical, biological, and mechanical technologies. Interactive expert systems for the identification of commonly encountered insect herbivores as well as several simulation models are also included. APIS is highly interactive and allows rapid and efficient access to the information via hyper-linked text, photographs, maps, and illustrations. APIS is available to all users online at <http://el.erdc.usace.army.mil/aqua/apis/apishelp.htm>. APIS is also available as an interactive CD-ROM, which can be obtained by sending an e-mail message from the online version or by contacting Sherry Whitaker (601-634-2990, Sherry.L.Whitaker@usace.army.mil). The CD-ROM is a Windows®-based product and performs under Windows® 95 and higher versions only.



Problem

Millions of acres of surface water nationwide are infested with non-indigenous, problem-causing aquatic plants. These plants, with no natural enemies in the United States, rapidly eliminate native aquatic plants forming extensive monocultures. Many of these plants interfere with navigation, flood control, hydropower production, and waterborne recreational uses. These plants have a very low value to fish and wildlife and contribute significantly to water quality problems. New colonies of problem aquatic plants continue to be found throughout the United States. The capacity of aquatic plant managers to successfully control aquatic plant infestations is highly dependent on their ability to access pertinent and up-to-date information on ecology, biology, systematics, plant identification, and environmentally compatible management techniques. However, accessing this information is becoming increasingly more difficult because the existing knowledge base, in the form of technical reports, journal articles, oral presentations, videotapes, etc., is already sizable and increasing rapidly. APIS allows easy access to such diverse and important information. APIS combines various information systems, which were developed over the last several years, into one integrated package. Systems within APIS include:

- Identification of aquatic plants.
- Identification of insect herbivores of aquatic plants.
- Identification of male leaf mining flies in the genus *Hydrellia*.
- Identification of the physiological age of female *Neochetina eichhorniae*.
- Assorted information originally contained in APROPOS, the Aquatic Plant Resource Operations and Planning Online Support.

**Expected Cost
To Implement**

The user incurs costs only in discretionary time spent using the system. APIS runs on computer setups that are readily available, i.e., IBM-compatible personal computer with Pentium processor and Microsoft Windows 95 and higher family with mouse support.

Benefits/Savings

[APIS™](#) saves significant amounts of time, and therefore, dollars, since critical and important information is easily accessible in one location and can be accessed at the office, laboratory, and/or field locations. Content is interlinked and indexed so the user can reach specific information in many ways. The organized format of APIS improves the quality of aquatic plant management activities and allows these activities to be accomplished more quickly and with greater ease by a wide variety of personnel with differing educational and training backgrounds.

Status

[APIS™](#) will continue to provide new technology transfer items as part of the Aquatic Plant Control Research Program and is being funded to maintain its currency and to add content to the online version. The most recent CD is dated fall 2001, Version 2.0. The "New Items" link will contain information that is added to the CD coverage. That information will be inserted directly into the online version of APIS. The CD-ROM version of APIS is a Windows®-based product and performs under Windows® 95 and higher versions only.

ERDC POC

Dr. Michael J. Grodowitz, 601/634-2972, Michael.J.Grodowitz@usace.army.mil

Distribution Sources

APIS is available online to both Corps users and the public at <http://el.erdc.usace.army.mil/aqua/apis/apishelp.htm>. APIS is also available as an interactive CD-ROM, which can be obtained by sending an e-mail message from the online version or by contacting Sherry Whitaker (601-634-2990), Sherry.L.Whitaker@usace.army.mil.

**Available
Documentation**

Documentation on the content and operation of APIS is found within APIS.

Available Training

No training is necessary or offered (see **Available Support** below).

Available Support

APIS is a user-friendly computer-based decision support and information system. Guidance that accompanies APIS should make the system easy to use and navigate. However, if users experience problems in using APIS, they are asked to contact Dr. Michael Grodowitz (601-634-2972) or Sherry Whitaker (601-634-2990). For questions concerning the technical content of APIS, please contact Dr. Grodowitz.